

Adult tonsillectomy – are long waiting lists putting patients at risk?

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Summary

There is a paucity of data on morbidity associated with long waiting lists for adult tonsillectomy. The aim of this study was to assess the morbidity associated with long waiting lists for adult tonsillectomy in a developing world setting. Of 350 patients on the waiting list at Groote Schuur Hospital for 18 months or more, only 55 were contactable. This low yield (15.7%) from the telephonic survey highlighted the difficulty of managing long waiting lists efficiently in a developing world setting. As only 1/55 patients on the waiting list had a complication (quinsy), it appears to be safe to delay tonsillectomy in adult patients. Only half of patients ultimately required tonsillectomy because of a natural reduction in the number of episodes of tonsillitis with time. In order to avoid unnecessary tonsillectomy we need to find better prognosticators to identify the subgroup of adult patients likely to have continued recurrent tonsillitis.

Tonsillectomy is one of the most commonly performed otolaryngology operations and is one of the most ancient surgical operations. The Scottish tonsillectomy audit¹ showed that recurrent tonsillitis was the most frequent reason for performing a tonsillectomy. The patients on our waiting list for tonsillectomy are those who have met our institutional criterion of 4 or more episodes of tonsillitis per year for more than 2 years.

The question of whether or not recurrent tonsillitis is a self-limiting disease has been addressed extensively in children. Studies have yielded conflicting reports. Earlier studies gave the impression that tonsillitis is self-limiting. The most notable studies in this regard are those by Paradise *et al.*² and Freeland and Curley.³ Recently Woolford *et al.*⁴ showed that in a sizeable minority of cases, tonsillitis would resolve. Prim *et al.*⁵ concluded that there was insufficient evidence to support the belief that long surgical waiting lists for tonsillectomy are associated with high rates of spontaneous resolution of recurrent acute tonsillitis. In a recent study,⁶

only 7% of parents felt that their child had improved with regard to symptom resolution.

Little is known about the outcome of adult patients on tonsillectomy waiting lists. Laing and McKerrow⁷ argued that tonsillectomy in young adults was cost-effective and a valid measure. In a developing world setting there are unique problems such as limited access to primary health care for recurrent acute tonsillitis.

The adult tonsillectomy waiting list for recurrent tonsillitis at Groote Schuur Hospital has increased in recent years because of the burden of head and neck cancer surgery coupled with reduced operating time. Some patients have therefore been on the waiting list for up to 5 years.

Objective

The aim of this study was to assess the morbidity associated with long waiting lists for adult tonsillectomy in a developing world setting.

Materials and methods

A telephonic survey was conducted of patients on the adult tonsillectomy waiting list at Groote Schuur Hospital. The patients had been booked for surgery between January 2000 and December 2003. Only those patients who had been waiting for at least 1½ years were included in the study.

Patients were questioned on the following: (i) the number of episodes of tonsillitis per year at time of booking; (ii) number of episodes of tonsillitis per year at time of interview; (iii) antibiotic history; (iv) complications, e.g. quinsy; (v) number of days lost at work; (vi) whether or not they had undergone tonsillectomy elsewhere in the interim; and (vii) whether or not they still wanted to undergo tonsillectomy.

The study was approved by the Health Research and Ethics Committee of the University of Cape Town. Data were analysed using Excel and SPSS statistical packages.

Results

Despite attempts to call all 350 patients on the waiting list, only 55 patients (15.7%) were contactable. Reasons for not

being able to contact the patients ranged from phones not working to patients having changed their physical addresses and telephone numbers. Data were therefore analysed for 55 patients.

Patients' ages ranged between 12 and 68 years (average age 26.9 years). The male-to-female ratio was 1:4. To find out if this was a representative sample we compared the average age and the sex ratio with those of all patients on the waiting list (average age 29.22 years, sex ratio 1:4) and found the differences not to be statistically significant ($p = 0.09$ and $p = 0.8$ respectively).

The number of episodes of tonsillitis per year at the time of booking compared with at the time of the interview is shown in Table I. The average number of episodes of tonsillitis per annum decreased significantly from 5.83 episodes at the time of booking (Cornfield's 95% confidence interval: 4.99 - 6.67) to 2.31 episodes at the time of the interview (Cornfield's 95% confidence interval: 1.49 - 3.13). The mean number of times patients took antibiotics was 2.40 times per year.

Only 1 patient developed a complication (peritonsillar abscess) as a consequence of delayed surgery. She required drainage of the abscess and admission to hospital and underwent interval tonsillectomy.

Only 32 of the 55 patients still wished to undergo tonsillectomy. This did not differ significantly from those not wanting to undergo tonsillectomy ($N = 22$, $p = 0.33$). One patient was undecided.

Table II compares the mean number of days lost at work for patients on the waiting list. Note that there is a statistically significant difference ($p = 0.0005$) in the number of working days lost in the group that still wanted to undergo tonsillectomy (6.59 days), compared with the group that did not wish to undergo tonsillectomy (0.27 days).

Discussion

The low yield of patients (15.7%) from the telephonic survey highlights one of the difficulties of managing long waiting lists efficiently in a developing world practice. It is difficult to confirm theatre bookings and to call patients for surgery at short notice.

Our study found that the male-to-female ratio for recurrent tonsillitis in adults requiring tonsillectomy was 1:4. This concurs with a previous report⁸ from Cape Town in which the male-to-female ratio was 1:3. The reason for this female preponderance is not known. Spicker and Schultz-Coulon⁹ showed that, despite the small sample size, in some young females in the postadolescent age group an abnormal personality structure influenced the indications for tonsillectomy.

Only 1 of 55 patients surveyed had a significant complication (quinsy) as a result of delayed tonsillectomy. It therefore appears to be safe to delay tonsillectomy in adult patients.

Our study found that there was a statistically significant reduction in the number of episodes of tonsillitis per year in patients on the waiting list. Lildholt *et al.*¹⁰ reported that only 45% of patients awaiting tonsillectomy developed acute tonsillitis when they were randomised to weekly medication with 500 mg azithromycin or placebo for 6 months. They also noted that azithromycin was not efficacious in the treatment of recurrent acute tonsillitis. The use of antibiotics is unlikely to explain the reduction in acute tonsillitis in our study as the mean number of times that patients used antibiotics was only 2.4 times per year. Therefore factors other than antibiotics must be responsible for this reduction. There might simply be a natural decline with time in the number of episodes of tonsillitis in adult patients with recurrent tonsillitis.

There was not a statistically significant difference between the number of patients on the waiting list still wanting to undergo tonsillectomy, compared with those not wanting to, do so. This means that had there not been a tonsillectomy waiting list, half of the patients would have undergone 'unnecessary' tonsillectomy. This brings into question whether recurrent acute tonsillitis is a good enough sole criterion for tonsillectomy in adult patients.

Those still wanting surgery lost more days of work as a consequence of more frequent, and/or severe, recurrent tonsillitis. The loss of days at work for those patients needing to have tonsillectomy has been highlighted in a number of studies^{11,12} and needs to be considered as a major factor in making a case for tonsillectomy in the adult population.

Other reasons put forward as a justification for tonsillectomy apart from the widely accepted indication of a cer-

TABLE I. EPISODES OF TONSILLITIS PER ANNUM AT TIME OF BOOKING COMPARED WITH AT TIME OF INTERVIEW ($N = 55$)

Episodes of tonsillitis	Mean	SD	SEM	95% CI of the difference
At booking	5.83	3.06	0.42	4.99 - 6.67
At interview	2.31	3.04	0.41	1.49 - 3.13

SD = standard deviation; SEM = standard error of mean; CI = confidence interval.

TABLE II. MEAN NUMBER OF DAYS LOST AT WORK FOR PATIENTS WANTING TONSILLECTOMY ($N = 32$) COMPARED WITH THOSE NOT WANTING IT ($N = 22$) (1 PATIENT UNDECIDED)*

Tonsillectomy	No. of patients	Mean work days lost	SD	SEM
Yes	32	6.59	0.88	0.19
No	22	0.27	7.67	1.39

* $p = 0.0005$.

SD = standard deviation; SEM = standard error of mean.

tain number of episodes of acute tonsillitis per year, include reduction in antibiotic use after tonsillectomy, improved patient satisfaction and better health.

Conclusions

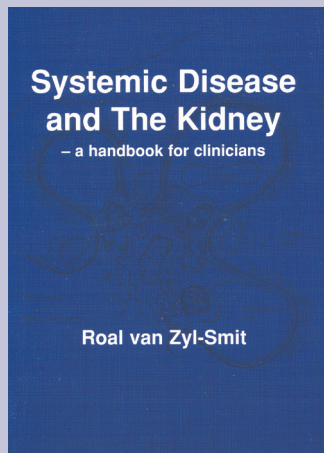
The conclusions of this study are that: (i) it is relatively safe clinical practice to have a long waiting lists for adult tonsillectomy; (ii) managing long waiting lists in a developing world practice is problematic; and (iii) about half of adult patients booked for tonsillectomy according to the number of episodes of tonsillitis, will ultimately not require surgery because of a natural reduction in the number of episodes of tonsillitis.

Recommendations

Recommendations are as follows: (i) long waiting lists should be avoided in a developing world practice as the majority of patients become uncontactable, and the waiting lists are difficult to manage efficiently; (ii) patients on long adult tonsillectomy waiting lists should be called/recalled before surgery to confirm the need for tonsillectomy; (iii) in order to avoid unnecessary tonsillectomy, we need to find better means of identifying the subgroup of adult patients likely to have continued recurrent tonsillitis; and (iv) the number of days lost at work needs to be a consideration for tonsillectomy.

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